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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,314	10/13/2003	Pagotto Amedeo	778-P-2-USA	3316

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EXAMINER
JOYNER, KEVIN

ART UNIT	PAPER NUMBER
1744	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

✓

Office Action Summary	Application No.	Applicant(s)	
	10/684,314	AMEDEO ET AL.	
	Examiner	**Art Unit**	
	Kevin C. Joyner	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *10/13/2003*.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 4, 5, 7, 8, 11, 12, 15-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruozi (U.S. Patent No. 6,039,991) in view of Chitre et al. (U.S. Patent No. 4,687,895).

Concerning claim 15, Ruozi discloses a conditioning system for sterilizing products (as shown in Figure 1) comprising:

A product conditioning unit (1) including a tunnel having one or more sidewalls, an entrance and an exit, (The apparatus is considered to include a tunnel, an entrance, an exit, and sidewalls as roughly shown in Figure 1.), said tunnel subdivided into a plurality of consecutively aligned stages including at least a heating stage and a cooling stage (abstract);

a pressurizing means for controlling the pressure of at least one of said stages (column 2 lines 63-67, and column 3, lines 1-10);

a heating means for providing heating in at least one stage of the conditioning unit, said heating means being controllable to controllably alter said microwave field within said stage (column 2 lines 63-64 and column 5 lines 62-65);

a conveyor that is capable of transporting products from upline to downline through said conditioning unit (columns 3 and 5, lines 11-14 and 42-61 respectively);

a temperature sensor capable of measuring the temperature of products traveling through said tunnel (column 5, lines 64-65);

and a controller connected to said heating means and said temperature sensor; said controller controlling said heating means to alter said microwave field (as disclosed in column 3, lines 1-3) within said stage depending on temperature measurements of the products within the tunnel (column 5, lines 62-65).

Concerning the limitations of the pressure sealing doors, Ruozi does disclose that the unit comprises stages that are independently operated and sealed from one another in column 2 lines 61-67 and column 3 lines 1-15. However, Ruozi does not appear to specifically disclose that the unit comprises a plurality of pressure sealing doors to seal at least one stage and separate at least one stage from an adjacent stage. Chitre discloses a microwave heating system with a conveyor that includes a plurality of separate heating zones in the abstract. The reference further discloses that the zones include sealing doors that separate one heating zone (referenced as cavities) from an adjacent heating zone in column 5 lines 60-64, and column 13 lines 66-68 in order to permit independent and arbitrarily different environmental and microwave conditions within adjacent heating zones. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Ruozi to include sealing doors to seal at least one stage and separate at least one stage from an adjacent stage as exemplified by Chitre in order to permit independent and arbitrarily different environmental and microwave conditions within adjacent heating zones.

Concerning the limitations of the heating means including a series of magnetrons, Ruozi does not specifically state the heating means used in the sterilizing apparatus. However, Chitre does disclose that the heating means used in the patent is a series of magnetrons as disclosed in column 7, lines 9-14 and shown in Figure 4. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize magnetrons in the sterilization apparatus of Ruozi in order to successfully heat sterilize the products as exemplified by Chitre.

Regarding claim 16, the heating means of Ruozi and the magnetrons of Chitre are both controlled by a controller as disclosed in column 5, lines 62-63; and column 7, lines 15-23 respectively. Both of which are fully capable of controlling said magnetrons to alter said microwave field within said stage depending on temperature measurements of the products within the tunnel.

Regarding claim 17, since there are no structural differences between the instant application and the disclosed references above and the conveyor is connected to said controller that controls the temperature measurements as disclosed by Ruozi in column 5, lines 43-61, then the apparatus is fully capable of moving said products upline to downline or downline to upline through said tunnel depending on temperature measurements of the products within the tunnel. Chitre discloses this as well in column 5, lines 13-21.

Concerning claim 19, Ruozi is silent with regards to the positioning and structure of the walls that make up the housing. However, Chitre discloses in Figures 1 and 4 that the conditioning system (23) and each of the stages has opposing parallel top and bottom walls and opposing parallel sidewalls so that said tunnel has a substantially rectangular cross section. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the rectangular cross sectional dimensions of the conditioning system and the stages as exemplified by Chitre in order to successfully practice the invention of Ruozi.

Regarding claim 20, Ruozi does not appear to disclose that each stage includes an inlet for introducing cleaning fluid from the exterior of said tunnel into the interior of said stage and an outlet allowing cleaning fluid to drain from said stage. However, Chitre discloses in column 6, lines 10-26 and 52-58 that each stage of the apparatus comprises an inlet capable of introducing cleaning fluid from the exterior of said tunnel to the interior of said stages and an outlet that is capable of allowing cleaning fluid to drain from said stage in order to provide the optimal, required controlled environment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Ruozi to include an inlet and outlet that is capable of introducing and dispersing a cleaning fluid in order to produce the required controlled environment as exemplified by Chitre.

Regarding claims 4, 5, 7, 8, 11, and 12, the limitations of these claims are met as discussed in reference to claims 15, 16, 17, 19, and 20 above, therefore the explanations above are relied upon as necessary.

3. Claims 6, 9, 10, 13, 14, and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Ruozi (U.S. Patent No. 6,039,991) in view of Chitre et al. (U.S. Patent No. 4,687,895) as applied to claims 4, 5, 7, 8, 11, 12, 15-17, and 19-20 above, and further in view of Kenyon et al. (U.S. Patent No. 3,961,569).

Ruozi in view of Chitre is relied upon as set forth in reference to claims 4, 5, 7, 8, 11, 12, 15-17, and 19-20 above. Ruozi in view of Chitre continues to disclose that the tunnel includes a preheating stage, a heating stage, and a cooling stage in columns 3 and 4, lines 45-65 and 14-19 respectively. Ruozi in view of Chitre does not appear to disclose that the tunnel includes a holding stage. Kenyon discloses an apparatus for the continuous microwave sterilization of food pouches that includes a microwave heating section, a holding section (referenced as a temperature maintenance section), and a cooling section as disclosed in column 3, lines 21-23. As disclosed in column 3 lines 45-46 the temperature maintenance is used to optimize the sterilization process. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ruozi in view of Chitre to include a holding station in order to optimize the sterilization process as exemplified by Kenyon.

In regards to claims 10 and 14, the limitations of these claims are met as discussed in reference to claims 15, 16, 17, 19, and 20 above, therefore the explanations above are relied upon as necessary.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruozi (U.S. Patent No. 6,039,991) in view of Chitre et al. (U.S. Patent No. 4,687,895) as

applied to claims 4, 5, 7, 8, 11, 12, 15-17, and 19-20 above, and further in view of Savi (U.S. Patent No. 4,342,726).

Ruozi in view of Chitre is relied upon as set forth in reference to claims 4, 5, 7, 8, 11, 12, 15-17, and 19-20 above. Concerning claim 1, all of the limitations are met as discussed with regard to claim 4. In reference to the conveyance means however, Ruozi is silent with regards to the materials used in conveying the products. Chitre although, does disclose the conveyance means includes a motor (107) positioned exterior of said tunnel (as shown in Figure 3 of Chitre), a plurality of wheels (referenced as sprockets (87)), located near the tunnel (as shown in Figure 3 of Chitre), a plurality of shafts (referenced as axles (93)) mechanically connected to said motor and said wheels (as discussed in column 9, lines 26-49), activation of said motor causing corresponding rotation of said shafts and said wheels. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the conveyance means of Chitre in the device of Ruozi in order to successfully perform the conveyance process in the device of Ruozi.

Ruozi in view of Chitre does not appear to disclose the limitations of said conveyor means including a plurality of wheels located within said tunnel or a plurality of shafts projecting through holes formed in said tunnel sidewalls to engage said wheels. Savi discloses a machine for sterilizing foodstuffs in cylindrical containers. The device includes a sterilization tunnel (referenced as T) with an entrance and exit that includes a conveyor with a motor (10). The conveyance means comprises a plurality of wheels (as broadly defined, the rollers (2) are wheels) located within said tunnel, and a plurality of shafts (as shown in Figure 1, the chains 3 and 3' surround a plurality of shafts) connected to said motor and said wheels (Although it is not specifically stated, the reduction gear is known to be connected to the motor in order to cause the wheels to rotate.), said shafts projecting through holes in said tunnel sidewalls to engage said wheels (As shown in Figure 1, the shafts that are engaged by the chains 3 and 3' go through the sidewall directly adjacent to it to engage with the wheels). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ruozi in view of Chitre to include a plurality of wheels located within said tunnel as well as a plurality of shafts projecting through holes formed in said tunnel sidewalls to engage said wheels in order to provide power to the wheels and to allow the wheels to rotate the product so that it may be sterilized on all sides as exemplified by Savi.

Concerning claim 2, Ruozi and Chitre both do not disclose that the conveyor includes a conveyor belt or rollers projecting laterally across the interior of said tunnel. Savi does disclose rollers that as broadly defined are considered wheels. However, the rollers are not projected laterally across the interior of said tunnel. Therefore, Ruozi in view of Chitre and further in view of Savi does not include a conveyor belt or rollers projecting laterally across the interior of said tunnel.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruozi (U.S. Patent No. 6,039,991) in view of Chitre et al. (U.S. Patent No. 4,687,895) of as applied to claims 1-2 above, and further in view of Kenyon et al. (U.S. Patent No. 3,961,569) and Savi (U.S. Patent No. 4, 342,726).

All limitations of claim 3 are met as discussed in reference to claim 6 in which Ruozi in view of Chitre and Kenyon also disclose that the conveyance means is found in each of the four stages. Additionally however, Ruozi in view of Chitre and Kenyon does not appear to disclose that each of said stages includes a plurality of wheels located within said stages, said wheels connected to said motor by shafts which project though holes formed in said tunnel sidewalls of said stages. Savi does not disclose that the tunnel includes at least four stages, but does disclose that the conveyance means includes a plurality of wheels located within the entire tunnel, said wheels connected to said motor by shafts which project through holes formed in said tunnel sidewalls of said stages. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the conveyance means of Savi in every stage of the apparatus of Ruozi in view of Chitre and Kenyon in order to provide power to the wheels and to allow the wheels to rotate the product so that it may be sterilized on all sides throughout the entire tunnel at every stage.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin C. Joyner whose telephone number is (571) 272-2709. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCJ

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SUPERVISORY PATENT EXAMINER